

# **Marine Science in the Schoolyard**

Educators will come to your school and conduct education programs outside on school grounds. Limit to 1.5 hour drive from Ft. Johnson. Check the calendar and request a program. Note: This is only a program REQUEST. You will be notified if your program was confirmed within 24 hours.

### **How to Read a Fish (Grades K-5)**

Cast your fishing line and interest this way as we explore the exciting world of fish. Join us as we examine their body shape and behaviors that make them unique. We'll meet some of the common species found in our estuaries and determine how they are adapted to survive! Discover the ancient Asian method of documenting fish size, Gyotaku, as well! We will use fish or fish stamps to make colorful prints of estuarine fish that each student gets to take home with them!

\*Fish printing optional: educators can bring live fish to the classroom instead

## Watershed in a Box (Grades K-12)

Explore your watershed from the comfort of your school. We will use commonly found materials to build a watershed model with your students to learn about the rivers that drain into our estuary. We will use online data to determine how people use land in that watershed and how we can make decisions that minimize run- off in our waterways.

#### Cast Netting (Grades 4-12)

Learn how to throw a cast net in your schoolyard! Cast nets are used to collect bait fish before fishing or to explore the smaller fishes and invertebrates in the estuary. We will bring some of these smaller animals that could be collected in a cast net to discuss their adaptations to living in our creeks and estuaries.



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### Sea Turtle Ecology (Grades K-12)

Let's learn about our state reptile! In this lesson, students will become a sea turtle biologist, learning about sea turtle ecology, genetic tagging, nesting, and strandings. An introduction to sea turtles will be followed by activities including monitoring a mock nest while calculating the success rate and investigating a stranded sea turtle scenario. We will then dive into determining how human and natural threats to sea turtle survival can be mitigated.

### **Squid Dissection** (Grades 5-12)

Did you know that oysters and squid are related? In this lab students will have the opportunity to examine connections between squid and some of their close marine relatives. Through a hands-on dissection, students will investigate some of the adaptations, defense mechanisms, and reproductive strategies of squid that have made them a successful species in waters around the world.

#### Fish Dissection (Grades 5-12)

This lab includes a study of the adaptations of a common SC fish species. Students will learn about current research being done by fisheries scientists, including how to age a fish using its ear bones! Then we'll dive into a dissection, examining the external and internal anatomy of bony fish. Join SCDNR staff as we discuss why we study and work to protect several important fish species.

#### Water Quality (Grades 5-12)

Water quality measurements are an important tool for understanding coastal ecosystems. Students will use various instruments to measure water quality parameters such as salinity, pH, dissolved oxygen, temperature, and nitrates. Students can compare a water sample from the Charleston Harbor with a water source found on school grounds. Then, water quality graphs will be used to determine which animals can survive in the estuary under changing temperature, salinity, and dissolved oxygen levels.



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### Oyster Reef Community (Grades 5-12)

South Carolina oyster reefs provide essential habitat and food for many species living in the estuary. In this lesson, students will first learn the ins and outs of these astonishing bivalves and the importance of oyster reef communities along our coast. Next, we'll comb through reef samples to collect, organize and identify the many organisms living within the crevasses of oyster shells.

## Marine Debris (Grades 5-12)

Marine debris is a growing global concern. But where does it come from, how does it get there, and why do we care? Through an assortment of activities, students will learn how debris affects animals, how long items take to break down, and prevention techniques. This program can be paired with a litter pick up to determine the types of debris commonly found around school grounds. Following the pick up, students can create stewardship posters using the debris they found and facts learned throughout the program.